

## § 3931.20

(v) Plans to address spills, leaks, venting, and flaring;

(e) An estimate of the quantity and quality of the oil shale resources;

(f) An explanation of how MER of the resource will be achieved for each Federal lease;

(g) Appropriate maps and cross sections showing:

(1) Federal lease boundaries and serial numbers;

(2) Surface ownership and boundaries;

(3) Locations of any existing and abandoned mines and existing oil and gas well (including well bore trajectories) and water well locations, including well bore trajectories;

(4) Typical geological structure cross sections;

(5) Location of shafts or mining entries, strip pits, waste dumps, retort facilities, and surface facilities;

(6) Typical mining or in situ development sequence, with appropriate timeframes;

(h) A narrative addressing the environmental aspects of the proposed mine or in situ operation, including at a minimum, the following:

(1) An estimate of the quantity of water to be used and pollutants that may enter any receiving waters;

(2) A design for the necessary impoundment, treatment, control, or injection of all produced water, runoff water, and drainage from workings; and

(3) A description of measures to be taken to prevent or control fire, soil erosion, subsidence, pollution of surface and ground water, pollution of air, damage to fish or wildlife or other natural resources, and hazards to public health and safety;

(i) A reclamation plan and schedule for all Federal lease(s) or exploration license(s) that details all reclamation activities necessary to fulfill the requirements of § 3931.20;

(j) The method of abandonment of operations on Federal lease(s) and exploration license(s) proposed to protect the unmined recoverable reserves and other resources, including:

(1) The method proposed to fill in, fence, or close all surface openings that are hazardous to people or animals; and

(2) For in situ operations, a description of the method and materials to be

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used to plug all abandoned development or production wells; and

(k) Any additional information that the BLM determines is necessary for analysis or approval of the POD.

### § 3931.20 Reclamation.

(a) The operator or lessee must restore the disturbed lands to their pre-mining or pre-exploration use or to a higher use agreed to by the BLM and the lessee.

(b) The operator must reclaim the area disturbed by taking reasonable measures to prevent or control onsite and offsite damage to lands and resources.

(c) Reclamation includes, but is not limited to:

(1) Measures to control erosion, landslides, and water runoff;

(2) Measures to isolate, remove, or control toxic materials;

(3) Reshaping the area disturbed, application of the topsoil, and re-vegetation of disturbed areas, where reasonably practicable; and

(4) Rehabilitation of fisheries and wildlife habitat.

(d) The operator or lessee must substantially fill in, fence, protect, or close all surface openings, subsidence holes, surface excavations, or workings which are a hazard to people or animals. These protected areas must be maintained in a secure condition during the term of the lease or exploration license. During reclamation, but before abandonment of operations, all openings, including water discharge points, must be closed to the BLM's satisfaction. For in situ operations, all drilled holes must be plugged and abandoned, as required by the approved plan.

(e) The operator or lessee must reclaim or protect surface areas no longer needed for operations as contemporaneously as possible as required by the approved plan.

### § 3931.30 Suspension of operations and production.

(a) The BLM may, in the interest of conservation, agree to a suspension of lease operations and production. Applications by lessees for suspensions of operations and production must be filed in duplicate in the proper BLM office and must explain why it is in the